

## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

1. (currently amended) A method for establishing headroom to provide margin in determining available transmit power value for a mobile station operating in a wireless communication system comprising the steps of:  
determining, by the mobile station, a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and  
establishing, by the mobile station, a headroom value based on the communication channel variance condition.
2. Canceled
3. (currently amended) A method according to claim ~~[[2]]~~1 wherein the mobile station determines a maximum data rate based on the headroom value and sends the maximum data rate to a base station.
4. (currently amended) A method according to claim ~~[[2]]~~1 wherein the mobile station determines a maximum data rate based on the headroom value and sends a rate adjustment request to a base station.
5. (currently amended) A method according to claim ~~[[2]]~~1 further comprising the steps of:  
detecting a battery condition of the mobile station; and  
modifying the headroom value based on the battery condition.

6. (original) A method according to claim 5 wherein the step of modifying the headroom value based on the battery condition comprises:
- determining if the battery condition relates to a low battery level; and
  - if the battery condition relates to a low battery level, increasing the headroom value.
7. (currently amended) A method according to claim ~~[[2]]~~1 wherein the step of determining a communication channel variance condition includes measuring a variance in a primary pilot power.
- 8-11. Canceled
12. (currently amended) A mobile station comprising:
- means for determining, by the mobile station, a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and
  - means for establishing, by the mobile station, a headroom value based on the communication channel variance condition.
13. (original) A mobile station according to claim 12 further comprising:
- means for determining a maximum data rate based on the headroom value; and
  - means for sending the maximum data rate to a base station.
14. (original) A mobile station according to claim 12 further comprising:
- means for determining a maximum data rate based on the headroom value; and
  - means for sending a rate adjustment request to a base station.
15. (original) A mobile station according to claim 12 further comprising:
- means for detecting a battery condition of the mobile station; and
  - means for modifying the headroom value based on the battery condition.

16. (currently amended) A wireless communication system comprising:  
a base station;  
at least one mobile station;  
means for determining, by the at least one mobile station, a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and  
means for establishing, by the at least one mobile station, a headroom value based on the communication channel variance condition.
17. (original) A wireless communication system according to claim 16 further comprising:  
means for determining a data rate based on the headroom value.
18. (original) A wireless communication system according to claim 17 further comprising:  
means for sending the data rate between the base station and said at least one mobile station.
19. (original) A wireless communication system according to claim 16 further comprising:  
means for determining a battery condition of said at least one mobile station; and  
means for modifying the headroom value based on the battery condition.
20. (original) A wireless communication system according to claim 19 further comprising:  
means for determining a data rate based on the headroom value; and  
means for sending the data rate between said at least one mobile station and the base station.